

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 3 BUSINESS (CRAIN HIGHWAY) AND GREEN BRANCH LANE IN ANNE ARUNDEL COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEADS AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE NORTH LEG OF MD 3 BUSINESS AND THE EAST AND WEST LEGS OF GREEN BRANCH LANE. MD 3 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 3 BUSINESS APPROACHES OPERATING LEAD/LAG PHASED, AND THE CRAINMONT DRIVE APPROACHES OPERATING SPLIT PHASED. PROTECTED LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 3 BUSINESS AND EASTBOUND AND WESTBOUND GREEN BRANCH LANE. INTERCONNECT IS PROVIDED ALONG MD 3 BUSINESS BETWEEN HOSPITAL DRIVE TO THE NORTH AND THE NORTHBOUND 1-97 OFF RAMP TO THE SOUTH.

NEW ALTERNATED AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE NORTH LEG OF MD 3 BUSINESS AND THE EAST AND WEST LEGS OF GREEN BRANCH LANE.

APS MESSAGE FOR CROSSING MD 3 BUSINESS (CRAIN HIGHWAY) FROM NORTHEAST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS CRAIN AT GREEN BRANCH. SECOND PUSHBUTTON IN MEDIAN. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MD 3 BUSINESS (CRAIN HIGHWAY) FROM NORTHWEST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CRAIN AT GREEN BRANCH. SECOND PUSHBUTTON IN MEDIAN. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MD 3 BUSINESS (CRAIN HIGHWAY) FROM MEDIAN:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS CRAIN AT GREEN BRANCH. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING GREEN BRANCH LANE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GREEN BRANCH AT CRAIN. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9570	51	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
			- 7 EACH R10-3(1) (9"x15")
			- 4 EACH W11-2 (36"x36")
			- 2 EACH W16-7pL (24"x12")
			- 2 EACH W16-7pR (24"x12")

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019

MR. JOHN MAYS  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013

MR. ED RODENHIZER  
SUPERVISOR - SIGNAL SHOP  
PHONE: (410) 787-7650

MR. MIKE HUBER  
ASSISTANT DISTRICT ENGINEER - UTILITY  
PHONE: (410) 841-1039

MR. ROBERT SNYDER  
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
2002	2	CY	TEST PIT EXCAVATION
5005	650	LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8001	7	EA	FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	4	EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8003	6	EA	FURNISH AND INSTALL 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8008	50	LF	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8010	64	LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
8012	50	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8015	51	SF	INSTALL GROUND MOUNTED SIGN
8020	850	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8021	800	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

EQUIPMENT LIST "C"

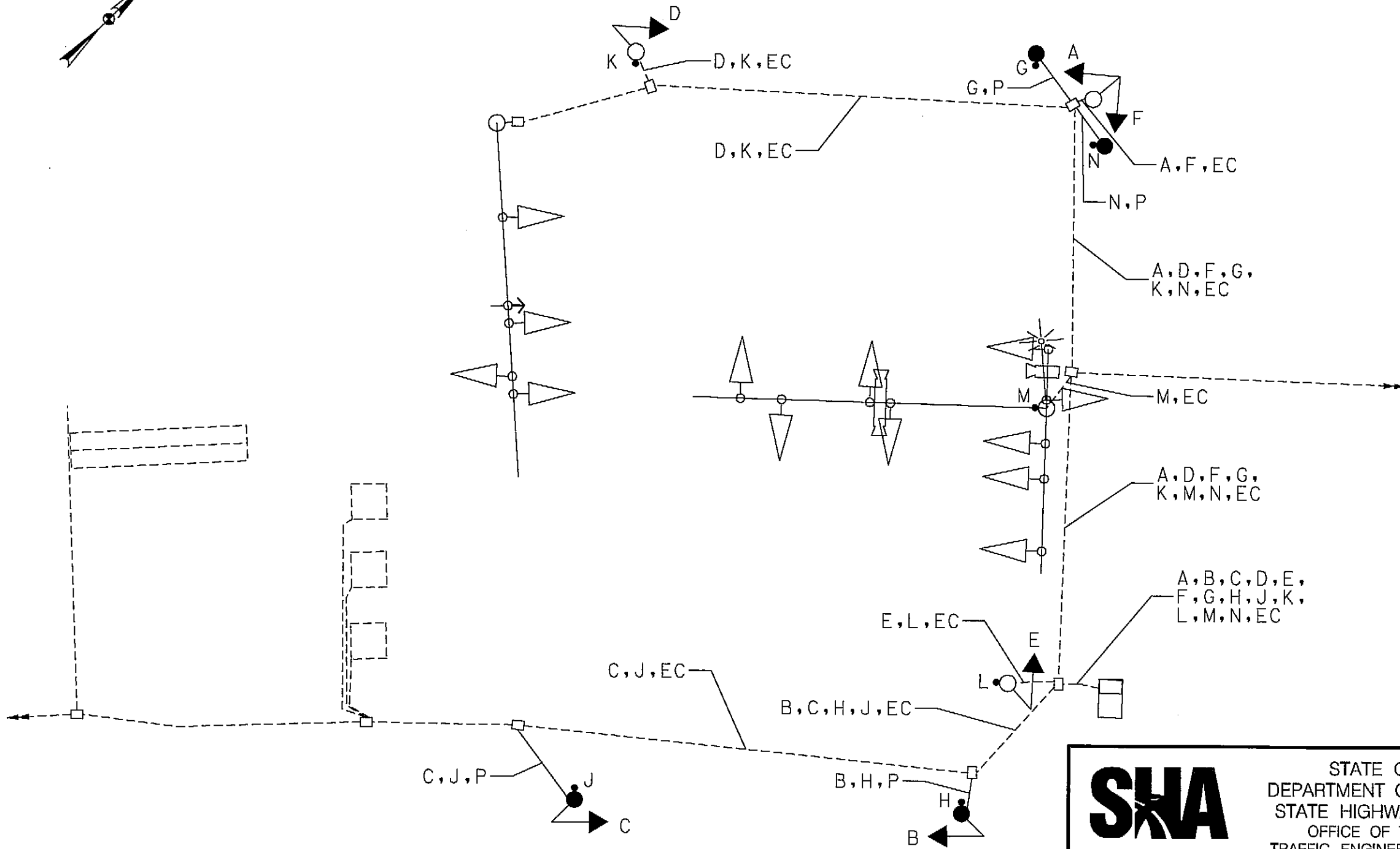
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

NONE.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 2 + 5	←R	←R	←R	R	R	←G	←G	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
2 + 5 CHANGE	←R	←R	←R	R	R	←Y	←Y	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 + 6	←R	←R	←R	G	G	←R	←R	G	G	R	R	R	R	W	W	W	W	DW	DW
PED CLEARANCE	←R	←R	←R	G	G	←R	←R	G	G	R	R	R	R	FL/DW	W	W	FL/DW	DW	DW
2 + 6 CHANGE	←R	←R	←R	G	G	←R	←R	Y	Y	R	R	R	R	DW	W	W	DW	DW	DW
PHASE 1 + 6	←G	←G	←G	G	G	←R	←R	R	R	R	R	R	R	DW	W	W	DW	DW	DW
PED CLEARANCE	←G	←G	←G	G	G	←R	←R	R	R	R	R	R	R	DW	FL/DW	FL/DW	DW	DW	DW
1 + 6 CHANGE	←Y	←Y	←Y	Y	Y	←R	←R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	←R	←R	←R	R	R	←R	←R	R	R	R	R	R	G	←G	DW	DW	DW	DW	DW
3 CHANGE	←R	←R	←R	R	R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	←R	←R	←R	R	R	←R	←R	R	R	R	R	G	←G	DW	DW	DW	DW	W	W
PED CLEARANCE	←R	←R	←R	R	R	←R	←R	R	R	R	R	G	←G	DW	DW	DW	DW	FL/DW	FL/DW
3 ALT CHANGE	←R	←R	←R	R	R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	←R	←R	←R	R	R	←R	←R	R	R	G	←G	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	←R	←R	←R	R	R	←R	←R	R	R	Y	Y	R	R	DW	DW	DW	DW	DW	DW
PRE-EMPTION	←R	←R	←R	R	R	←G	←G	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
PRE-EMPTION CHANGE	←R	←R	←R	R	R	←Y	←Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/←R	FL/←R	FL/←R	FL/Y	FL/Y	FL/←R	FL/←R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A,B,C, } 5 CONDUCTOR ELECTRICAL CABLE  
D,E,F } (NO. 14 AWG)
- G,H,J,K, } 2 CONDUCTOR ELECTRICAL CABLE  
L,M,N } (NO. 14 AWG)
- P } STRANDED BARE COPPER GROUND  
WIRE (NO. 6 AWG)
- EC } EXISTING CABLE



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

**MD 3 BUSINESS (CRAIN HIGHWAY) AT  
GREEN BRANCH LANE  
GLEN BURNIE, MARYLAND**

GENERAL INFORMATION SHEET

SCALE NONE DATE OCTOBER 16, 2012 CONTRACT NO. AX6446378

DESIGNED BY NJM COUNTY ANNE ARUNDEL

DRAWN BY NJM LOGMILE 02800300.80

CHECKED BY BSH T.I.M.S. NO. L639

F.A.P. NO. NA T.O.D. NO.

T.S. NO. 3383F-GI SG-02 OF SG-02 SHEET NO. 7 OF 7